ST 1800-A18

Operating instructions en
Mode d’emploi fr
Manual de instrucciones es
Manual de instruções pt

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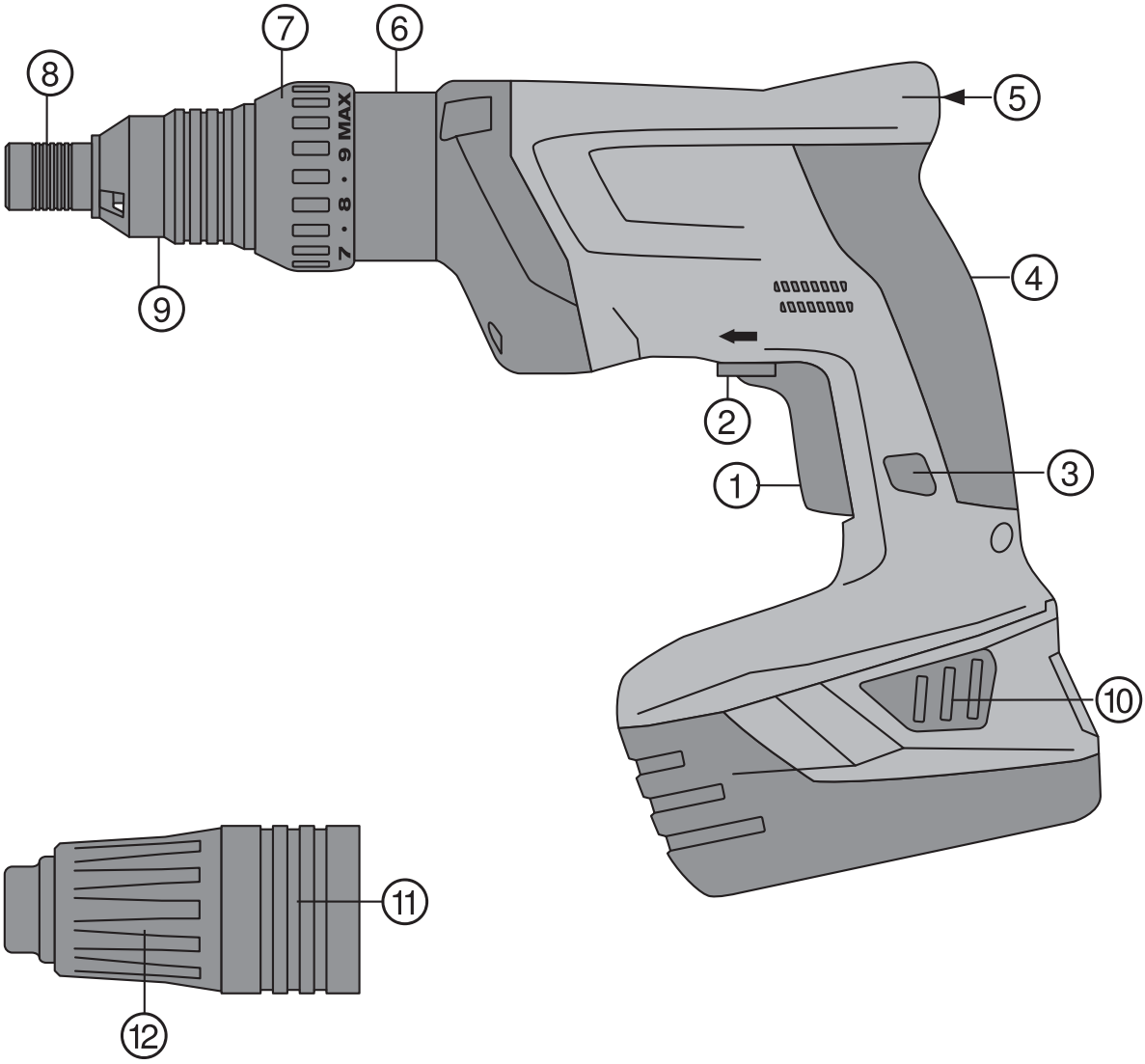

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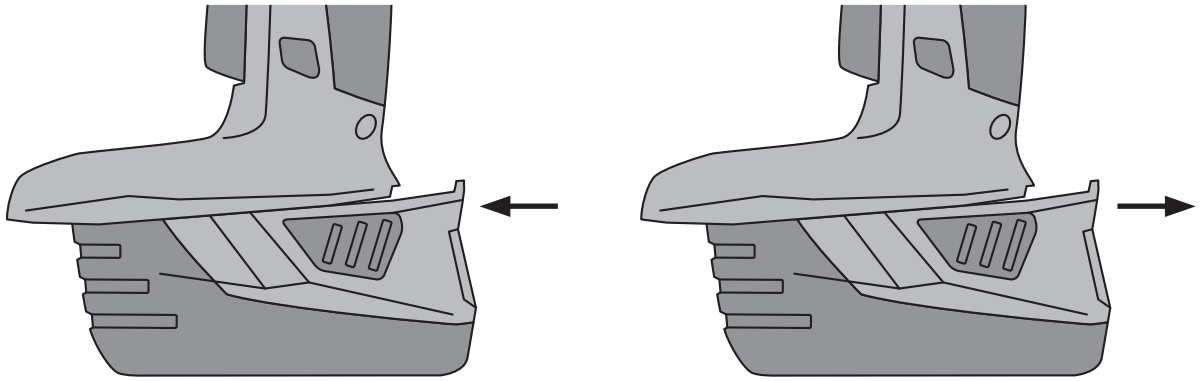

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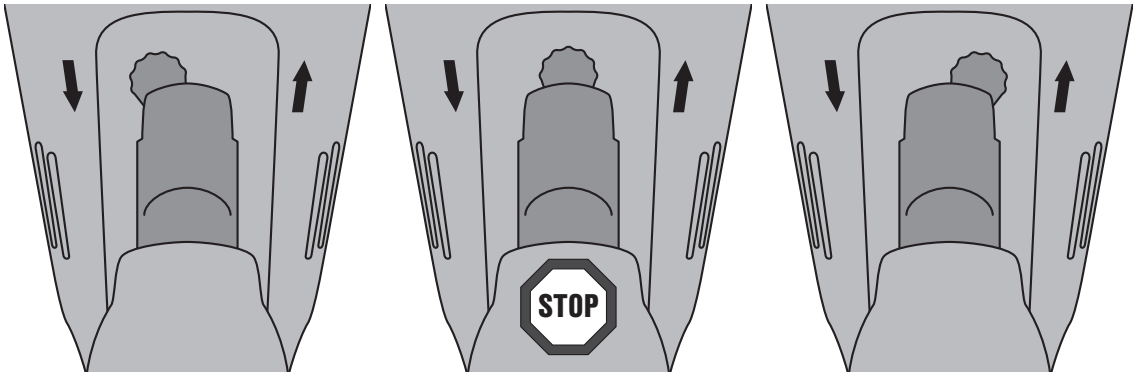

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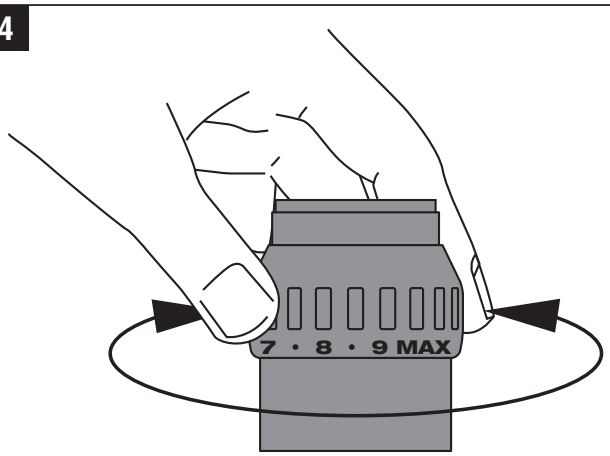

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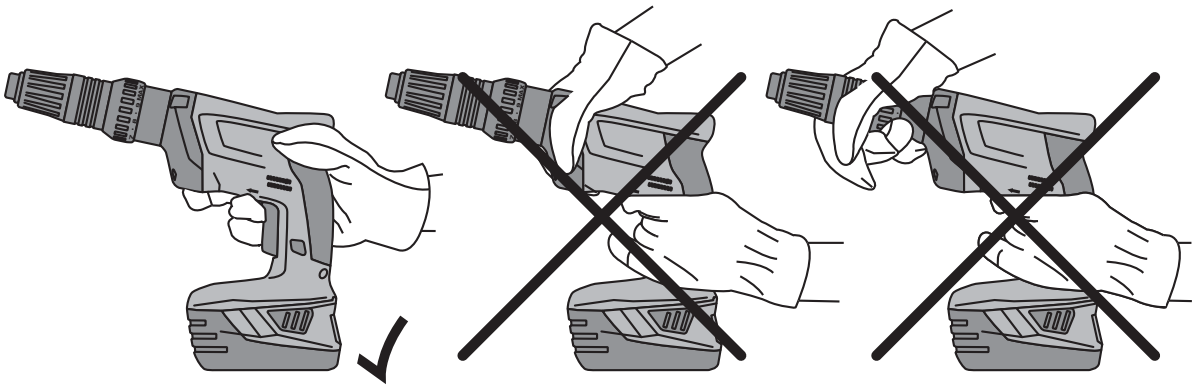

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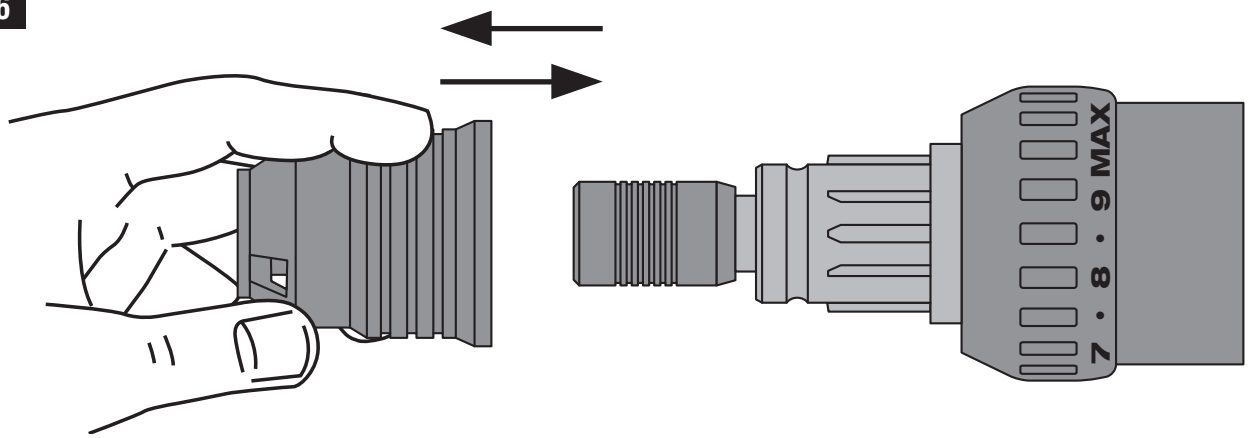

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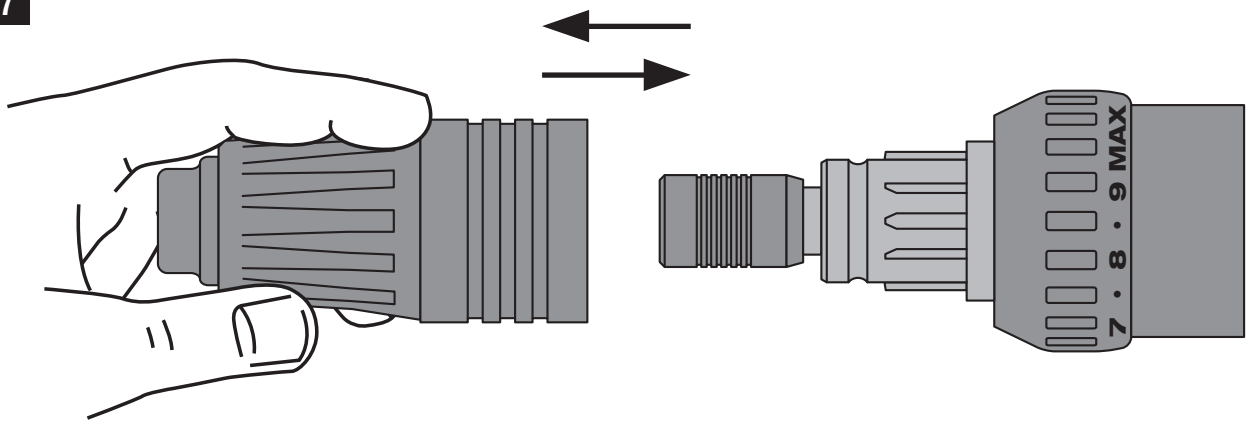

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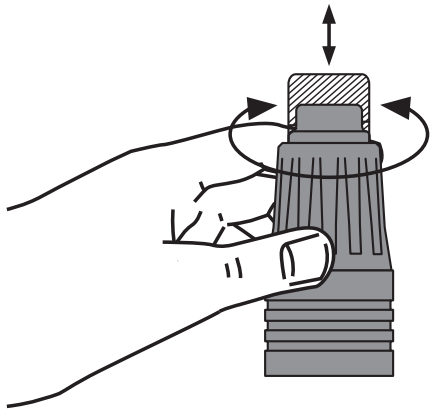

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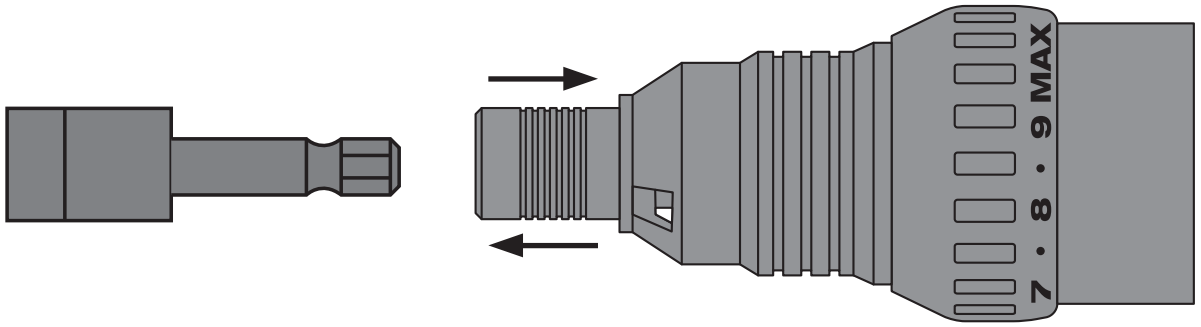

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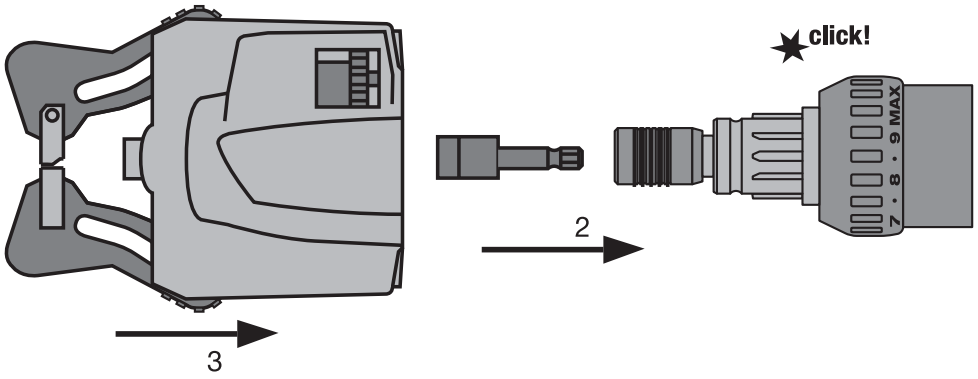

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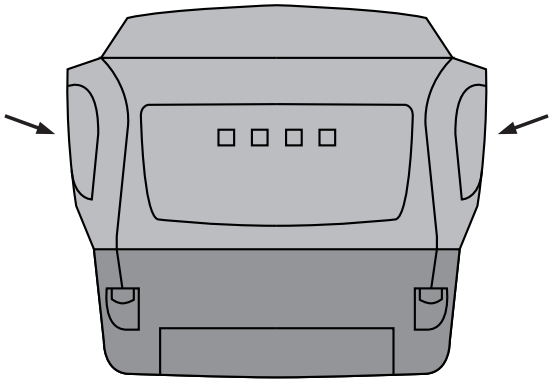

ORIGINAL OPERATING INSTRUCTIONS

ST 1800-A18 cordless screwdriver for metal

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It is essential that the operating instructions are read before the power tool is operated for the first time.

Always keep these operating instructions together with the power tool.

Ensure that the operating instructions are with the power tool when it is given to other persons.

Contents	Page
1. General information	1
2. Description	2
3. Accessories	4
4. Technical data	4
5. Safety instructions	5
6. Before use	8
7. Operation	9
8. Care and maintenance	11
9. Troubleshooting	12
10. Disposal	13
11. Manufacturer's warranty - tools	13

1 These numbers refer to the corresponding illustrations. The illustrations can be found on the fold-out cover pages. Keep these pages open while studying the operating instructions.
In these operating instructions, the designation "power tool" always refers to the ST 1800-A18 cordless screwdriver for metal.

Parts, operating controls and indicators 1

① Control switch (with electronic speed control)
② Forward / reverse switch
③ Lockbutton for sustained operation
④ Grip
⑤ Pressure application surface
⑥ Power tool / accessory interface
⑦ Torque setting ring
⑧ Chuck
⑨ Guard
⑩ Battery release buttons
⑪ Depth gauge (optional)
⑫ Depth gauge adjustment ring

1. General information

1.1 Safety notices and their meaning

DANGER
Draws attention to imminent danger that will lead to serious bodily injury or fatality.

WARNING
Draws attention to a potentially dangerous situation that could lead to serious personal injury or fatality.

CAUTION
Draws attention to a potentially dangerous situation that could lead to slight personal injury or damage to the equipment or other property.

NOTE
Draws attention to an instruction or other useful information.

1.2 Explanation of the pictograms and other information

Warning signs

General warning | Warning: electricity | Warning: caustic substances

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Obligation signs

Wear eye protection

Wear ear protection

Wear protective gloves

Symbols

Read the operating instructions before use

Return waste material for recycling.

V
Volts

Direct current

n_0
Rated speed under no load

RPM
Revolutions per minute

/min
Revolutions per minute

Location of identification data on the power tool
The type designation and serial number can be found on the type identification plate on the machine or tool. Make a note of this data in your operating instructions and always refer to it when making an enquiry to your Hilti representative or service department.

Type:

Generation: 01

Serial no.:

2. Description

2.1 Use of the product as directed

The ST 1800-A18 is a hand-held cordless screwdriver for fastening profile metal sheets, metal sheets and sandwich panels in metal construction.
This power tool is designed for driving and removing self-drilling and self-tapping screws in appropriate materials and material thicknesses.
The power tool is equipped with 2 clutch systems: Depth gauge coupling and torque coupling.
It is possible to use a stand-up tool for driving collated screws.
Only the specified screwdriving accessories and other specified accessories should be used.
The motor cooling air is drawn in through the ventilation slots and blown out of the tool through the air exit.
The power tool is suitable for use by right or left-handed persons.
An ergonomically designed grip with synthetic rubber covering provides a comfortable, secure hold and reduces fatigue.
To use the power tool to its best potential, we recommend that you hold the power tool by the in-line grip.
The specially-designed pressure transfer surface at the top end of the ergonomic grip allows additional pressures to be applied with your other hand without discomfort.
The power tool is designed for professional use and may be operated, serviced and maintained only by trained, authorized personnel. This personnel must be informed of any special hazards that may be encountered. The power tool and its ancillary equipment may present hazards when used incorrectly by untrained personnel or when used not as directed.
Observe the information printed in the operating instructions concerning operation, care and maintenance.
To avoid the risk of injury, use only genuine Hilti accessories and insert tools.
Do not use the battery as a power source for other unspecified appliances.
Working on materials hazardous to the health (e.g. asbestos) is not permissible.
Nationally applicable industrial safety regulations must be observed.
Do not use the power tool where there is a risk of fire or explosion.

Modification of the power tool or tampering with its parts is not permissible.
The working environment may be as follows: construction site, workshop, renovation, conversion or new construction.

2.2 Chuck

¼" hex. socket

2.3 Switch

Control switch for smooth speed control
Lockbutton for continuous operation
Forward / reverse switch

2.4 Lubrication

Grease lubrication

2.5 Grip

Vibration-absorbing ergonomic grip (in-line grip)

2.6 Power tool overloading and overheating indicator

The power tool is equipped with an electronic protection system to prevent overloading and overheating. The power tool switches itself off automatically in the event of overloading and overheating. After releasing the control switch, the power tool may not restart immediately when the switch is pressed again (while the power tool is cooling down).

LEDs light constantly	LEDs blink	Power tool status
-	LED 1,2,3,4	Power tool overloaded or overheated

2.7 The items supplied include (cardboard box versions):

1 Power tool
1 ST-DC guard
1 Operating instructions

2.8 Li-ion battery charge status

LEDs light constantly	LEDs blink	Charge status C
LED 1,2,3,4	-	C ≧ 75 %
LED 1,2,3	-	50 % ≦ C < 75 %
LED 1,2	-	25 % ≦ C < 50 %
LED 1	-	10 % ≦ C < 25 %
-	LED 1	C < 10 %
-	LED 1	Battery overheated

3. Accessories

Designation	Short designation	Description
Depth gauge	ST-DG 19	For screws with a sealing washer diameter of up to 19 mm (0.75")
Depth gauge	ST-DG 22	For screws with a sealing washer diameter of up to 22 mm (0.87")
Guard	ST-DC	
Screwdriving accessories	S-NSD	Screwdriving sockets for hex. head screws (¼", 5⁄16", 3⁄8")
Stand-up tool	SDT 25/15	for collated screws
Stand-up tool	SDT 30	for collated screws
Screw guide	ST-SG 5.5/ ST-SG 6.5	
Bits	TX, PH, SL, PZ	
Bit holder	S-BH	
Charger for Li-ion batteries	C 4/36	
Charger for Li-ion batteries	C 4/36-ACS	
Charger for Li-ion batteries	C 4/36-ACS TPS	
Battery	B 18/3.3 Li-ion	
Battery	B 18/2.6 Li-ion	
Battery	B 18/1.6 Li-ion	

4. Technical data

Right of technical changes reserved.

Power tool	ST 1800-A18
Rated voltage	21.6 V
Weight	2.5 kg (5.51 lb)
Dimensions (L x W x H)	252 mm (9.92") x 94 mm (3.7") x 268 mm (10.55")
Rated speed under no load	2,000/min
Max. torque	12 Nm (9 lb/ft)
Chuck	Hex. socket ¼"

Battery	B 18/1.6 Li-ion	B 18/2.6 Li-ion	B 18/3.3 Li-ion
Rated voltage	21.6 V	21.6 V	21.6 V
Capacity	1.6 Ah	2.6 Ah	3.3 Ah
Energy content	34.56 Wh	56.16 Wh	71.28 Wh
Weight	0.48 kg (1.06 lb)	0.78 kg (1.72 lb)	0.78 kg (1.72 lb)
Temperature monitoring	Yes	Yes	Yes
Type of cell	Lithium-ion	Lithium-ion	Lithium-ion
No. of cells	6	12	12

5. Safety instructions

5.1 General power tool safety warnings

a) ⚠**WARNING**

Read all safety warnings and instructions. Failure to follow the warnings and instructions may result in electric shock, fire and/or serious injury. **Save all warnings and instructions for future reference.** The term "power tool" in the warnings refers to your mains-operated (corded) power tool or battery-operated (cordless) power tool.

5.1.1 Work area safety

a) **Keep work area clean and well lit.** Cluttered or dark areas invite accidents.

b) **Do not operate power tools in explosive atmospheres, such as in the presence of flammable liquids, gases or dust.** Power tools create sparks which may ignite the dust or fumes.

c) **Keep children and bystanders away while operating a power tool.** Distractions can cause you to lose control.

5.1.2 Electrical safety

a) **Power tool plugs must match the outlet. Never modify the plug in any way. Do not use any adapter plugs with earthed (grounded) power tools.** Unmodified plugs and matching outlets will reduce risk of electric shock.

b) **Avoid body contact with earthed or grounded surfaces such as pipes, radiators, ranges and refrigerators.** There is an increased risk of electric shock if your body is earthed or grounded.

c) **Do not expose power tools to rain or wet conditions.** Water entering a power tool will increase the risk of electric shock.

d) **Do not abuse the cord. Never use the cord for carrying, pulling or unplugging the power tool. Keep cord away from heat, oil, sharp edges or moving parts.** Damaged or entangled cords increase the risk of electric shock.

e) **When operating a power tool outdoors, use an extension cord suitable for outdoor use.** Use of a cord suitable for outdoor use reduces the risk of electric shock.

f) **If operating a power tool in a damp location is unavoidable, use a residual current device (RCD) protected supply.** Use of an RCD reduces the risk of electric shock.

5.1.3 Personal safety

a) **Stay alert, watch what you are doing and use common sense when operating a power tool. Do not use a power tool while you are tired or under the influence of drugs, alcohol or medication.** A moment of inattention while operating power tools may result in serious personal injury.

b) **Use personal protective equipment. Always wear eye protection.** Protective equipment such as dust mask, non-skid safety shoes, hard hat, or hearing protection used for appropriate conditions will reduce personal injuries.

c) **Prevent unintentional starting. Ensure the switch is in the off-position before connecting to power source and/or battery pack, picking up or carrying the tool.** Carrying power tools with your finger on the switch or energising power tools that have the switch on invites accidents.

d) **Remove any adjusting key or wrench before turning the power tool on.** A wrench or a key left attached to a rotating part of the power tool may result in personal injury.

e) **Do not overreach. Keep proper footing and balance at all times.** This enables better control of the power tool in unexpected situations.

f) **Dress properly. Do not wear loose clothing or jewellery. Keep your hair, clothing and gloves away from moving parts.** Loose clothes, jewellery or long hair can be caught in moving parts.

g) **If devices are provided for the connection of dust extraction and collection facilities, ensure these are connected and properly used.** Use of dust collection can reduce dust-related hazards.

5.1.4 Power tool use and care

a) **Do not force the power tool. Use the correct power tool for your application.** The correct power tool will do the job better and safer at the rate for which it was designed.

b) **Do not use the power tool if the switch does not turn it on and off.** Any power tool that cannot be controlled with the switch is dangerous and must be repaired.

c) **Disconnect the plug from the power source and/or the battery pack from the power tool before making any adjustments, changing accessories, or storing power tools.** Such preventive safety measures reduce the risk of starting the power tool accidentally.

d) **Store idle power tools out of the reach of children and do not allow persons unfamiliar with the power tool or these instructions to operate the power tool.** Power tools are dangerous in the hands of untrained users.

e) **Maintain power tools. Check for misalignment or binding of moving parts, breakage of parts and any other condition that may affect the power tool's operation. If damaged, have the power tool repaired before use.** Many accidents are caused by poorly maintained power tools.

f) **Keep cutting tools sharp and clean.** Properly maintained cutting tools with sharp cutting edges are less likely to bind and are easier to control.

g) **Use the power tool, accessories and tool bits etc. in accordance with these instructions taking into account the working conditions and the work to be performed.** Use of the power tool for operations different from those intended could result in a hazardous situation.

5.1.5 Battery tool use and care

a) **Recharge only with the charger specified by the manufacturer.** A charger that is suitable for one type of battery pack may create a risk of fire when used with another battery pack.

b) **Use power tools only with specifically designated battery packs.** Use of any other battery packs may create a risk of injury and fire.

c) **When battery pack is not in use, keep it away from other metal objects, like paper clips, coins, keys, nails, screws or other small metal objects, that can make a connection from one terminal to another.** Shorting the battery terminals together may cause burns or a fire.

d) **Under abusive conditions, liquid may be ejected from the battery, avoid contact. If contact accidentally occurs, flush with water. If liquid contacts eyes, additionally seek medical help.** Liquid ejected from the battery may cause irritation or burns.

5.1.6 Service

a) **Have your power tool serviced by a qualified repair person using only identical replacement parts.** This will ensure that the safety of the power tool is maintained.

5.2 Additional safety precautions

5.2.1 Personal safety

a) **Hold power tool by insulated gripping surfaces, when performing an operation where the fastener may contact hidden wiring.** Fasteners contacting a "live" wire may make exposed metal parts of the power tool "live" and could give the operator an electric shock.

b) **It is recommended that ear protectors are worn.** Exposure to noise can cause hearing loss.

c) **Keep the power tool, especially its grip surfaces, clean and free from oil and grease. Do not use cleaning agents which contain silicone.**

d) **Improve the blood circulation in your fingers by relaxing your hands and exercising your fingers during breaks between working.**

e) **Avoid touching rotating parts. Switch the power tool on only after bringing it into position at the workpiece.** Touching rotating parts, especially rotating insert tools, may lead to injury.

f) **Activate the safety lock (forward / reverse switch in the middle position) before storing or transporting the power tool.**

g) **Use the right power tool for the job. Do not use the power tool for purposes for which it was not intended. Use it only as directed and when in faultless condition.**

h) **Avoid unintentional starting. Never carry the power tool with your finger on the on/off switch. Remove the battery from the power tool during work breaks, before carrying out maintenance, before changing cutting tools and before transporting the power tool.**

i) **Do not carry the tool by the depth gauge or by the guard.**The snap-on connection may unintentionally become undone.

j) **Children must be instructed not to play with the power tool.**

k) **The power tool is not intended for use by children, by debilitated persons or those who have received no instruction or training.**

l) **WARNING: Some dust created by grinding, sanding, cutting and drilling contains chemicals known to cause cancer, birth defects, infertility or other reproductive harm; or serious and permanent respiratory or other injury.** Some examples of these chemicals are: lead from

lead-based paints, crystalline silica from bricks, concrete and other masonry products and natural stone, arsenic and chromium from chemically-treated lumber. Your risk from these exposures varies, depending on how often you do this type of work. **To reduce exposure to these chemicals, the operator and bystanders should work in a well-ventilated area, work with approved safety equipment, such as respiratory protection appropriate for the type of dust generated, and designed to filter out microscopic particles and direct dust away from the face and body. Avoid prolonged contact with dust. Wear protective clothing and wash exposed areas with soap and water.** Allowing dust to get into your mouth, eyes, or to remain on your skin may promote absorption of harmful chemicals.

m) **Do not lift or carry the tool by the accessories attached to it.**

5.2.2 Careful use of the power tool

Check that the insert tools used are compatible with the chuck system and that they are secured in the chuck correctly.

5.2.3 Electrical safety

Before beginning work, check the working area (e.g. using a metal detector) to ensure that no concealed electric cables or gas and water pipes are present. External metal parts of the power tool may become live, for example, when an electric cable is damaged accidentally. This presents a serious risk of electric shock.

5.2.4 Battery tool use and care

a) **Do not expose batteries to high temperatures or fire.** This presents a risk of explosion.

b) **Do not disassemble, squash or incinerate batteries and do not subject them to temperatures over 80°C.** A risk of fire, explosion or injury through contact with caustic substances may otherwise result.

c) **Do not use batteries other than those approved for use with the applicable power tool or appliance.** Use of other batteries or use of the battery for purposes for which it is not intended presents a risk of fire and explosion.

d) **Observe the special instructions applicable to the transport, storage and use of Li-ion batteries.**

e) **Avoid short-circuiting the battery. Check that the terminals on the battery and in the power tool are free from foreign objects before inserting the battery in the power tool.** Short circuiting the battery terminals presents a risk of fire, explosion and chemical burns.

f) **Do not charge or continue to use damaged batteries (e.g. batteries with cracks, broken parts, bent or pushed-in and/or pulled-out contacts).**

5.2.5 Work area safety

Ensure that the workplace is well ventilated. Exposure to dust at a poorly ventilated workplace may result in damage to the health.

5.2.6 Personal protective equipment

The user and any other persons in the vicinity must wear suitable eye protection, a hard hat, ear protection and protective gloves while the power tool is in use.

6. Before use

6.1 Battery use and care

NOTE

Battery performance drops at low temperatures. Never use the battery until the cells become fully discharged. Change to the second battery as soon as a drop in performance is noticed. Recharge the battery immediately so that it is ready for reuse.

Store the battery in a cool, dry place. Never store the battery where it is exposed to direct sunlight or sources of heat, e.g. on heaters / radiators or behind a motor vehicle windscreen. Batteries that have reached the end of their life must be disposed of safely and correctly to avoid environmental pollution.

6.2 Charging the battery

DANGER

Use only the Hilti batteries and Hilti chargers listed under "Accessories".

6.2.1 Charging a new battery for the first time

A new battery must be charged correctly for the first time before use. This will ensure that the cells form correctly. Incorrect initial charging may have a permanent, negative effect on battery capacity. Please refer to the applicable battery charger's operating instructions for information about initial charging.

6.2.2 Charging a previously used battery

Ensure that the outer surfaces of the battery are clean and dry before inserting it in the corresponding charger.

Read the operating instructions for the charger for further information about the charging procedure.

Li-ion batteries are ready for use at any time, even when only partly charged. Charging progress is indicated by the LED display (see charger operating instructions).

6.3 Fitting the battery 2

CAUTION

Before fitting the battery, check that the power tool is switched off and that the safety lock is engaged (forward/reverse switch in the middle position). Use only the Hilti batteries approved for use with this power tool.

CAUTION

Check that the terminals on the battery and in the power tool are free from foreign objects before inserting the battery in the power tool.

1. Push the battery into the power tool from the rear as far as it will go and until it is heard to engage with a double click.
2. **CAUTION A falling battery may present a risk of injury to yourself or others.**
   Check that the battery is seated securely in the power tool.

6.4 Removing the battery 2

1. Press both battery release buttons.
2. Pull the battery out of the power tool toward the rear.

6.5 Transport and storage of battery packs

Pull the battery pack out of the locked position (working position) and move it into the first latching position (transport position).

If you disconnect a battery pack from the power tool for transport or storage, make sure that the contacts of the battery pack are not short-circuited. Remove loose metal parts such as screws, nails, clamps, loose screw bits, wires or metal swarf from the case, toolbox or transport container, or prevent these parts from coming into contact with the battery packs.

Observe national and international transport regulations when shipping battery packs (transportation by road, rail, sea or air).

7. Operation

CAUTION
Wear protective gloves when changing insert tools as the insert tools get hot during use.

CAUTION
Working on the material may cause it to splinter. **Wear eye protection and protective gloves.** Splintering material presents a risk of injury to the eyes and body.

7.1 Setting forward or reverse rotation 3

NOTE
The forward / reverse switch is used to select the direction of rotation of the drive spindle. An interlock prevents switching while the motor is running. The control switch is locked when the forward / reverse switch is in the middle position. Push the forward / reverse switch to the left (when the power tool is held in the working direction) to select forward rotation. Push the forward / reverse switch to the right (when the power tool is held in the working direction) to select reverse rotation.

7.2 Torque selection 4

Turn the torque clutch setting ring to the desired torque setting.

7.3 Safe operation 5

WARNING
The depth gauge and chuck must not be used as a grip. A screw coming into contact with a concealed electric cable may result in electric shock.

CAUTION
Always hold the tool by the grip and/or with the hands on plastic parts of the casing.

7.4 Switching on / off

1. Press the tool against the work surface. The drive spindle begins to rotate.
2. The speed of the power tool can be controlled smoothly (increased from zero to maximum) by pressing the control switch gradually.
3. To switch the tool off, release the control switch.

7.5 Pressure transfer surface

The pressure transfer surface allows the user to apply higher pressures to the power and screw, thereby optimizing drilling and screwdriving. It makes the tool less tiring to use.
Apply pressure to the pressure transfer surface with your other hand when drilling and screwdriving.
This will significantly reduce the load on the hand and arm holding the tool.

7.6 Lockbutton for sustained operation

NOTE
The lockbutton for sustained operation allows the motor to run continuously without need for constant pressure on the control switch.

7.6.1 Switching on in sustained operating mode

1. Press the control switch fully.
2. While maintaining pressure on the control switch, press the lockbutton and then release the control switch.

7.6.2 Switching off after sustained operation

Press the control switch. The lockbutton returns to its original position.

7.7 Guard 6

When the depth gauge is not fitted, the guard protects the depth gauge holder from dirt and damage.
Fit the guard by pushing it onto the tool from the front.
Remove the guard by pulling it away from the tool.

7.8 Depth gauge

Attachment for correctly fastening screws which have a sealing washer.

Use a depth gauge suitable for the diameter of the sealing washer (accessory).
By adjusting the depth gauge, the screw seal can be correctly press-fitted.

7.8.1 Fitting the depth gauge 7

1. Pull off the guard.
2. Push the depth gauge onto the tool from the front.

7.8.2 Adjusting the depth gauge 8

7.8.2.1 The screw is pressed too tightly against the surface.

Turn the depth gauge to the right.

7.8.2.2 The screw is not pressed tightly enough against the surface.

Turn the depth gauge to the left.
Compression of the screw seal is increased.

7.8.3 Removing the depth gauge 7 6

Pull the depth gauge forward, away from the power tool.
Refit the guard to protect the tool.

7.9 Changing screwdriving accessories 9

NOTE
The chuck has a ¼" hexagon socket drive for various screwdriving accessories (bit holders, bits, etc.). This is a standard size (DIN 3126/ISO 1173).

1. If a depth gauge is fitted, pull it off forwards, away from the power tool.
2. Pull the sleeve of the chuck forward and hold it securely.
3. Pull the screwdriving accessory out of the chuck and replace it with the desired accessory.
4. Release the sleeve and allow it to return to its original position.
   The screwdriving accessory must be held securely in the chuck.
5. Check that the screwdriving accessory is held securely.
6. If necessary, refit the depth gauge on the tool.

7.10 Removing a previously-driven screw

1. Remove the depth gauge or screw guide by pulling it forward, away from the power tool.
2. Set the forward / reverse switch to the reverse rotation position.
3. The screw can then be removed.

7.11 Using the screw guide

We recommend use of the ST-SG 5.5/6.5 screw guide (accessory) when driving sandwich panel screws.

7.11.1 Fitting the screw guide 10

1. Remove the guard or pull the depth gauge forwards away from the power tool.
2. Insert the screwdriving socket in the chuck.
3. Push the screw guide onto the tool from the front until it is heard to engage.

7.11.2 Removing the screw guide

1. Pull the screw guide forward firmly, away from the tool.
2. Refit the guard to the tool or fit the depth gauge.

7.12 Reading the charge status LED display on Li-ion batteries 11

NOTE
The charge status cannot be indicated while the power tool is in operation. If LED 1 blinks, this simply indicates that the battery is either fully discharged or too hot for use (temperature above 80°C).

The Li-ion battery features a charge status LED display. The charge status is indicated by the LEDs on the battery during charging (please refer to the operating instructions for the charger). When the battery is at rest (not in use), its charge status is indicated by the four LEDs on the battery for three seconds after pressing one of the battery release buttons.

8. Care and maintenance

CAUTION
Before beginning cleaning, remove the battery from the power tool in order to prevent unintentional starting.

8.1 Care of insert tools

Clean off dirt and dust deposits adhering to the insert tools and protect them from corrosion by wiping the insert tools from time to time with an oil-soaked rag.

8.2 Care of the power tool

CAUTION
Keep the power tool, especially its grip surfaces, clean and free from oil and grease. Do not use cleaning agents which contain silicone.

The outer casing of the power tool is made from impact-resistant plastic. Sections of the grip are made from a synthetic rubber material.
Never operate the power tool when the ventilation slots are blocked. Clean the ventilation slots carefully using a dry brush. Do not permit foreign objects to enter the interior of the power tool. Clean the outside of the power tool at regular intervals with a slightly damp cloth. Do not use a spray, steam pressure cleaning equipment or running water for cleaning. This may negatively affect the electrical safety of the power tool.
Dirt or foreign matter may collect in the chuck. Clean it at regular intervals.

8.3 Care of the Li-ion battery

Avoid entrance of moisture.
Charge the battery fully before using it for the first time.
In order to achieve maximum battery life, stop discharging the battery as soon as a significant drop in performance is noticed.

NOTE
If use of the power tool continues, further battery discharge will be stopped automatically before the battery cells suffer damage.

Charge the battery with the Hilti charger approved for use with Li-ion batteries.
NOTE
- A conditioning charge (as is required with NiCd or NiMH batteries) is not necessary.
- Interruption of the charging procedure has no negative effect on battery life.
- Charging can be started at any time with no negative effect on battery life. There is no memory effect (as with NiCd or NiMH batteries).
- For best results, batteries should be stored fully charged in a cool dry place. Avoid charging the battery in places subject to high ambient temperatures (e.g. at a window) as this has an adverse effect on battery life and increases the rate of self-discharge.
- If the battery no longer reaches full charge, it may have lost capacity due to aging or overstressing. It is possible to continue working with a battery in this condition but it should be replaced in good time.

8.4 Maintenance

WARNING
Repairs to the electrical section of the power tool may be carried out only by trained electrical specialists.

Check all external parts of the power tool for damage at regular intervals and check that all controls operate faultlessly. Do not operate the power tool if parts are damaged or when the controls do not function faultlessly. If necessary, the power tool should be repaired by Hilti Service.

8.5 Checking the power tool after care and maintenance

After carrying out care and maintenance work on the power tool, check that all protective and safety devices are fitted and that they function faultlessly.

9. Troubleshooting

Fault	Possible cause	Remedy
The power tool doesn't run.	The battery is discharged or fitted incorrectly.	The battery must be heard to engage with a double click or, respectively, needs to be charged.
	Electrical fault.	Remove the battery from the power tool and contact Hilti Service.
The power tool switches itself off and all 4 LEDs on the battery blink.	The overload cut-out has been activated.	Release the control switch, reduce the load on the power tool and then press the switch again.
The power tool doesn't run and 1 LED blinks.	The battery is discharged.	Change the battery and recharge the discharged battery.
	The battery is too hot or too cold.	Bring the battery to the recommended working temperature.
The control switch can't be pressed, i.e. the switch is locked.	The forward / reverse switch is in the middle position (safety lock engaged).	Push the forward / reverse switch to the left or right.
The screw cannot be driven, although the drive spindle rotates.	The forward / reverse switch is set to the wrong direction of rotation.	Set the forward / reverse switch to the correct direction of rotation.
	An incorrect or worn bit / bit holder / setter is used.	Check that the correct bit / bit holder / setter is used or fit a new one.
Running speed suddenly drops considerably.	The battery is discharged.	Change the battery and recharge the discharged battery.
Speed cannot be controlled by the switch, it simply switches on / off.	The control switch is defective.	Contact Hilti Service.
The battery doesn't engage with an audible double click.	The retaining lugs on the battery are dirty.	Clean the retaining lugs and check that the battery engages securely. Contact Hilti Service if the problem persists.
The power tool or the battery gets very warm.	Electrical fault.	Switch the power tool off immediately, remove the battery and contact Hilti Service.
	The tool has been overloaded.	Allow the power tool to cool down.
The screw is pressed too tightly against the surface.	The depth gauge is set incorrectly.	Turn the depth gauge to the right.
The screw is not pressed tightly enough against the surface.	The depth gauge is set incorrectly.	Turn the depth gauge to the left.

Fault	Possible cause	Remedy
The battery becomes too hot to touch.	The battery cells are defective.	Place the tool in non-flammable surroundings (at least 3 meters away from flammable materials) where it can be kept under observation and allow it to cool down. If necessary, extinguish flames with cold water or allow it to burn under supervision. Contact Hilti Service.

10. Disposal

CAUTION
Improper disposal of the equipment may have serious consequences: The burning of plastic components generates toxic fumes which may present a health hazard. Batteries may explode if damaged or exposed to very high temperatures, causing poisoning, burns, acid burns or environmental pollution. Careless disposal may permit unauthorized and improper use of the equipment. This may result in serious personal injury, injury to third parties and pollution of the environment.

CAUTION
Dispose of defective batteries without delay. Keep them out of reach of children. Do not attempt to open or dismantle batteries and do not dispose of them by incineration.

CAUTION
Dispose of the batteries in accordance with national regulations or return them to Hilti.

Most of the materials from which Hilti power tools or appliances are manufactured can be recycled. The materials must be correctly separated before they can be recycled. In many countries, Hilti has already made arrangements for taking back your old power tools or appliances for recycling. Please ask your Hilti customer service department or Hilti representative for further information.

11. Manufacturer's warranty - tools

Hilti warrants that the tool supplied is free of defects in material and workmanship. This warranty is valid so long as the tool is operated and handled correctly, cleaned and serviced properly and in accordance with the Hilti Operating Instructions, and the technical system is maintained. This means that only original Hilti consumables, components and spare parts may be used in the tool.

This warranty provides the free-of-charge repair or replacement of defective parts only over the entire lifespan of the tool. Parts requiring repair or replacement as a result of normal wear and tear are not covered by this warranty.

Additional claims are excluded, unless stringent national rules prohibit such exclusion. In particular, Hilti is not obligated for direct, indirect, incidental or consequential damages, losses or expenses in connection with, or by reason of, the use of, or inability to use the tool for any purpose. Implied warranties of merchantability or fitness for a particular purpose are specifically excluded.

For repair or replacement, send the tool or related parts immediately upon discovery of the defect to the address of the local Hilti marketing organization provided.

This constitutes Hilti's entire obligation with regard to warranty and supersedes all prior or contemporaneous comments and oral or written agreements concerning warranties.

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